NANOVA™
THERAPY SYSTEM

CASE STUDY:
LONG-STANDING BURN INJURY TO FOREARM

Tanya Brandon,
Plastics Nurse Specialist, St John's Hospital, Livingston, Edinburgh

Background
A 52-year-old female who had suffered a burn to the left forearm 48 years prior. However, the wound had broken down repeatedly over the years, and she had a history of sarcoidosis and burn contractures. The patient was seen in the outpatient plastic surgical department in advance of another skin grafting procedure. She had recently undergone several debridement procedures, and the wound had been treated with a foam dressing.

Due to the high risk of the wound becoming stalled, the NANOVA™ Therapy System was initiated to promote wound healing of the wound without use of bulky equipment. At this time, the wound measured 12cm x 7cm; the wound bed comprised 80% granulating (of which approximately half was active) and 20% sloughy tissue, and there were moderate levels of serosanguinous exudate. The patient rated pain as 5 out of 10 on the visual analogue scale (VAS). A hydro-desloughing fibre dressing was used in conjunction with the NANOVA™ Therapy System. The dressing was placed diagonally to accommodate the wound and dressing changes were scheduled for every 3 days.

Week 1 review: The wound size had reduced slightly, to 12cm x 6.5cm (7% reduction in wound area from baseline), and the wound bed was now 90% granulating (of which approximately two-thirds was active granulation) and 10% sloughy tissue. The patient reported no pain during dressing wear or at change, and the application of the dressing and achievement of negative pressure took less than 5 minutes. NANOVA™ Therapy and dressing change frequency were continued unchanged.

Week 2 review: The wound showed signs of critical colonisation, and the periwound skin had become macerated. However, wound size had decreased to 11.5cm x 6cm (18% reduction from baseline), and the wound bed was 100% granulating. Exudate levels remained moderate. Due to the progress in the wound, as well as patient comfort and dressing ease of use, the NANOVA™ Therapy System was continued in conjunction with an antimicrobial dressing to reduce bacterial burden.

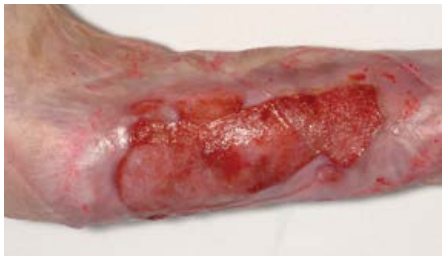
Week 3 review: The wound remained critically colonised, but continued to improve in terms of size, decreasing to 10.5cm x 4.5cm (a 44% reduction from baseline). Periwound skin appeared dry and flaky, and exudate levels were moderate. The patient and clinician expressed high levels of satisfaction with NANOVA™ Therapy System's ease of use and comfort. Because of steady progress in the wound, the NANOVA™ Therapy System was continued, this time in conjunction with an antimicrobial dressing to reduce infection risk.

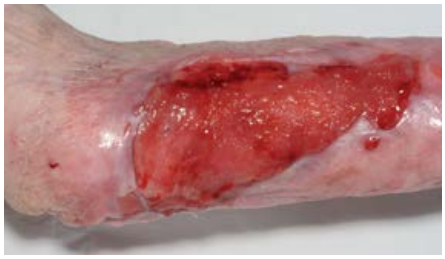
Week 4 review: The wound was still critically colonised, with moderate exudate and the periwound skin remained macerated. However, there was a further reduction in wound size, to 10.5cm x 4cm — a 50% reduction from baseline. The patient continued to report no pain during dressing wear and change. Due to these factors, and the steady positive progress in the wound, the NANOVA™ Therapy System was continued beyond the study period.

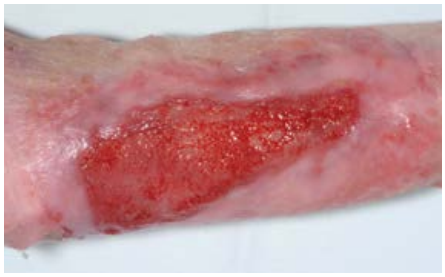
As with any case study, the results and outcomes should not be interpreted as a guarantee or warranty of similar results. Individual results may vary depending on the patient's circumstances and condition.

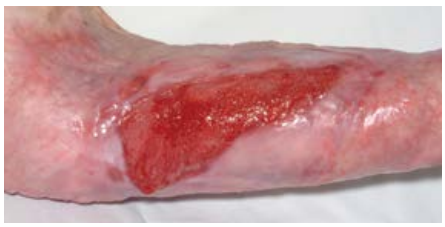
Reprinted with the permission of *Wounds UK*. This case study was originally published in a Round Table Discussion Document: Using NANOVA™ Therapy System in Practice: a round table discussion. London: *Wounds UK*. 2014.

Good healing progression prior to skin grafting in this burn site wound, which had broken down repeatedly over the past 48 years


Baseline: 16/2


Week 1: 23/02


Week 3: 10/3


Week 4: 16/3

Summary
- Recurrent, long-standing burn injury sustained 48 years prior
- 50% reduction in wound volume by week 4 (44% at 21 days)
- NANOVA™ Therapy was continued beyond study period to maintain steady wound progression prior to skin grafting

Note: The use of other wound care dressings in combination with the NANOVA™ Therapy System has not been clinically evaluated by the manufacturer

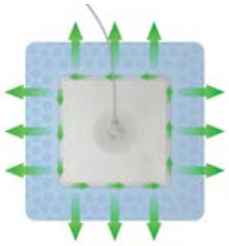
NANOVA™ THERAPY SYSTEM

NOTE: These Hints & Tips are not intended as a substitute for the Safety Information and Instructions for Use accompanying the NANOVA™ Therapy System. Please consult a physician and product instructions for use prior to application. This material is intended for healthcare professionals.

HINTS & TIPS

1 Sealing the Dressing

- After application, smooth the silicone around the pad, working outward to the edge of the dressing.
- If you observe a crease in the adhesive border, lift and reseal rather than trying to iron out the wrinkle.



2 Exudate & Dressing Positioning

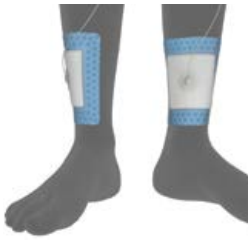
- When managing wounds on dependent anatomy, fluid absorption capacity can be optimised by placing the dressing so there is more absorptive pad below rather than above the wound.
- Fluid is retained within the absorptive core of the dressing to minimise the potential for maceration.

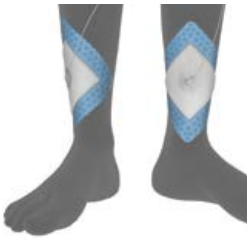
OK

Better

3 Anatomical Contours

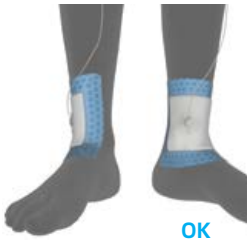
- Pay attention to anatomical contours.
- Positioning the dressing as a square on compound curves can transfer tension to the dressing border. This can be avoided and conformity improved if the dressing is rotated.



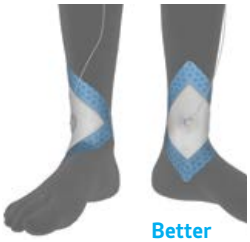


4 Joints

- When applying the dressing close to joints, care should be taken to ensure the dressing pad will not be creased in a tissue fold. Orient the dressing to minimise the amount of dressing pad or border that is extended over joints. On lower leg wounds this includes:
  - **The malleous.**
  - **The flexion point between the leg and dorsum of the foot.**
  - **Achilles tendon to the rear.**



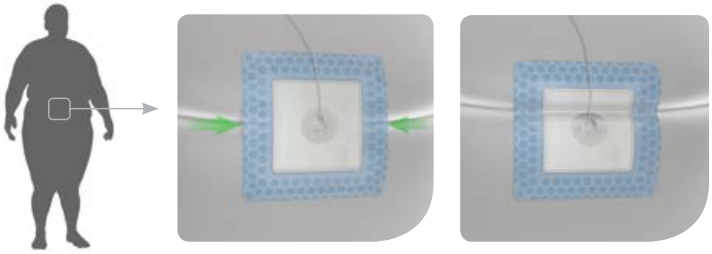
OK



Better

5 Skin Folds & Depressions

- Stability of anatomy is not always obvious. Observe movement of the wound site before placing the dressing (patient standing vs. supine position).
- Where practical, place the port above or below a tissue fold. Placing the port over a skin fold or tissue depression may increase tension on the adhesive border which could lead to loss of seal. Careful placement may also be more comfortable.



In Summary:

- Consider the anatomy, how the dressing will conform, and rotate the dressing when applying to areas that present compound curves.
- Orient the dressing to minimise the amount of pad or adhesive border over joints, for example the ankle.
- Position the pressure transfer port above or below tissue crease lines and folds.
- When in doubt, have the patient sit or ambulate so you can observe movement at and around the wound site.
- Provided clinically appropriate, consider using a thin hydrocolloid or similar primary contact layer to bridge voids under the adhesive border.
- It is okay to use clinically appropriate secondary fixation if deemed essential to maintaining an effective seal.
- If the wound appears too large for the dressing, consider an alternative negative pressure system such as **V.A.C.VIA™** or **ACTIV.A.C.™ Therapy Systems**.

Customer Contact Information

For questions regarding this product, supplies, or additional information about KCI products and services, please contact your Acelity sales authorized representative. Visit **kci-medical.com**

NOTE: Specific indications, contraindications, warnings, precautions and safety information exist for KCI products and therapies. Before use, clinicians must review all risk information and essential prescribing information which can be found in the NANOVA™ Therapy System *Instructions for Use*. This material is intended for healthcare professionals.

DSL#16-0203.SYX5422.OUS.CS4 (5/16)

Acelity™